

September 25, 2006

Charles L.A. Terreni Chief Clerk and Administrator South Carolina Public Service Commission Post Office Drawer 11649 Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. Power Plant Performance Report (August 2006)

Dear Mr. Terreni:

Enclosed are an original and one copy of the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of August 2006.

Sincerely,

s/ Len S. Anthony

Len S. Anthony Deputy General Counsel – Regulatory Affairs

LSA/dhs Enclosures 45612

c: John Flitter (ORS)

# The following units had no off-line outages during the month of August:

Brunswick Unit 2 Harris Unit 1 Robinson Unit 2 Mayo Unit 1 Roxboro Unit 2 Roxboro Unit 3

Roxboro Unit 4

#### Brunswick Unit 1

### Full Forced Outage

- A. <u>Duration:</u> The unit was taken out of service at 04:12 on August 11, and returned to service at 04:22 on August 24, a duration of 312 hours and 10 minutes.
- B. Cause: Generator Stator Cooling Leak
- C. Explanation: The unit was taken out of service to investigate and repair a hydrogen leak into the main generator stator cooling water.
- D. <u>Corrective Action:</u> Repairs were made to correct the main generator stator cooling leak. Additional outage activities included replacement of a heater drain pump assembly and repairs to a safety relief valve. Also, Nuclear Service Water pump inspections and repairs were conducted during the outage. The unit was returned to service upon completion of maintenance, inspections, and testing activities.

Progress	<b>Energy Carolinas</b>
Run Date	9/21/2006

### BASE LOAD POWER PLANT PERFORMANCE REPORT Brunswick 1 \*\*

	Month of	August 2006	Twelve Month	Summary	See Notes*
MDC	938	MW	938	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	382,134	MWH	7,160,663	MWH	2
Capacity Factor	54.76	%	87.15	%	
Equivalent Availability	54.66	%	85.58	%	
Output Factor	94.34	%	100.41	%	
Heat Rate	10,682	BTU/KWH	10,415	BTU/KWH	
	MWH	% of Possible	MVVH	% of Possible	
Full Scheduled	0	0.00	562,800	6.85	3
Partial Scheduled	3,006	0.43	36,671	0.45	4
Full Forced	292,813	41.96	292,813	3.56	5
Partial Forced	20,559	2.95	275,856	3.36	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	697,872		8,216,880		8

See 'Notes for Nuclear Units' filed with the January 2006 report.
 Gross of Power Agency

Progress	Energy	Carolinas
Run Date		2/21/2006

# BASE LOAD POWER PLANT PERFORMANCE REPORT Brunswick 2 \*\*

	Month of	August 2006	Twelve Month	Summary	See Notes*
MDC	937	MW	925	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	693,383	MWH	7,864,395	MWH	2
Capacity Factor	99.46	%	97.09	%	
Equivalent Availability	99.79	%	94.84	%	
Output Factor	99.46	%	99.90	%	
Heat Rate	10,659	BTU/KWH	10,515	BTU/KWH	
	MVVH 	% of Possible	MWH 	% of Possible	
Full Scheduled	0	0.00	231,001	2.85	3
Partial Scheduled	1,492	0.21	86,861	1.07	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	2,253	0.32	76,473	0.94	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	697,128		8,100,080		8

See 'Notes for Nuclear Units' filed with the January 2006 report.
 Gross of Power Agency

Progress Ene	rgy Carolinas
Run Date	9/21/2006

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Harris 1 \*\*

	Month of	August 2006	Twelve Month	Summary	See Notes*
MDC	900	MW	900	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	665,520	MWH	7,069,914	MWH	2
Capacity Factor	99.39	%	89.67	%	
Equivalent Availability	100.00	%	88.92	%	
Output Factor	99.39	%	100.54	%	
Heat Rate	11,062	BTU/KWH	10,878	BTU/KWH	
	MV/H	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	820,800	10.41	3
Partial Scheduled	33	0.00	1,491	0.02	4
Full Forced	0	0.00	22,185	0.28	5
Partial Forced	4,047	0.60	100,436	1.27	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	669,600		7,884,000		8

See 'Notes for Nuclear Units' filed with the January 2006 report.
 Gross of Power Agency

Progress	<b>Energy Carolinas</b>
Run Date	

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Robinson 2

	Month of	August 2006	Twelve Month	Summary	See Notes*
MDC	710	MW	710	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	535,996	MWH	5,774,189	MWH	2
Capacity Factor	101.47	%	92.84	%	
Equivalent Availability	99.85	%	88.79	%	
Output Factor	101.47	%	103.74	%	
Heat Rate	11,050	BTU/KWH	10,758	BTU/KWH	
	MWH	% of Possible	MWH 	% of Possible	
Full Scheduled	0	0.00	653,720	10.51	3
Partial Scheduled	0	0.00	42,506	0.68	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	774	0.15	774	0.01	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	528,240		6,219,600		8

<sup>\*</sup> See 'Notes for Nuclear Units' filed with the January 2006 report.

	Month of	August 2006	Twelve Month	Summary	See Notes*
MDC	745	MW	745	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	409,934	MWH	4,629,544	MWH	2
Capacity Factor	73.96	%	70.94	%	
Equivalent Availability	89.41	%	93.35	%	
Output Factor	73.96	%	75.07	%	
Heat Rate	10,625	BTU/KWH	10,448	BTU/KWH	
	MWH 	% of Possible	MVVH	% of Possible	
Full Scheduled	0	0.00	312,677	4.79	3
Partial Scheduled	0	0.00	15,284	0.23	4
Full Forced	0	0.00	32,842	0.50	5
Partial Forced	58,707	10.59	73,038	1.12	6
Economic Dispatch	85,639	15.45	1,462,816	22.41	7
Possible MWH	554,280		6,526,200		8

See 'Notes for Fossil Units' filed with the January 2006 report.
 Gross of Power Agency

Progress Energy Carolinas Run Date 9/21/2006

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Roxboro 2

	Month of	August 2006	Twelve Month	Summary	See Notes*
MDC	670	MW	670	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	441,741	MWH	4,717,380	MWH	2
Capacity Factor	88.62	%	80.38	%	
Equivalent Availability	93.45	%	92.76	%	
Output Factor	88.62	%	83.67	%	
Heat Rate	9,206	BTU/KWH	9,392	BTU/KWH	
	MVVH	% of Possible	MV/H	% of Possible	
Full Scheduled	0	0.00	159,929	2.72	3
Partial Scheduled	32,517	6.52	192,000	3.27	4
Full Forced	0	0.00	71,411	1.22	5
Partial Forced	137	0.03	1,404	0.02	6
Economic Dispatch	24,085	4.83	727,077	12.39	7
Possible MWH	498,480		5,869,200		8

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2006 report.

Progress	<b>Energy Carolinas</b>
Run Date	9/21/2006

# BASE LOAD POWER PLANT PERFORMANCE REPORT Roxboro 3

	Month of	August 2006	Twelve Month Summary		See Notes*
MDC	707	MW	707	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	395,399	MWH	4,365,527	MWH	2
Capacity Factor	75.17	%	70.49	%	
Equivalent Availability	89.78	%	93.58	%	
Output Factor	75.17	%	72.48	%	
Heat Rate	10,304	BTU/KWH	10,107	BTU/KWH	
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	170,623	2.75	3
Partial Scheduled	0	0.00	132,203	2.13	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	53,749	10.22	95,009	1.53	6
Economic Dispatch	76,860	14.61	1,429,958	23.09	7
Possible MWH	526,008		6,193,320		8

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2006 report.

Progress	<b>Energy Carolinas</b>
Run Date	9/21/2006

#### BASE LOAD POWER PLANT PERFORMANCE REPORT Roxboro 4 \*\*

	Month of	August 2006	Twelve Month	Summary	See Notes*
MDC	700	MW	700	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	416,389	MWH	4,119,731	MWH	2
Capacity Factor	79.95	%	67.18	%	
Equivalent Availability	96.36	%	94.96	%	
Output Factor	79.95	%	68.11	%	
Heat Rate	10,641	BTU/KWH	10,600	BTU/KWH	
	MWH	% of Possible	MWH 	% of Possible	
Full Scheduled	0	0.00	77,770	1.27	3
Partial Scheduled	2,138	0.41	174,236	2.84	4
Full Forced	0	0.00	5,600	0.09	5
Partial Forced	16,839	3.23	51,619	0.84	6
Economic Dispatch	85,434	16.40	1,703,043	27.77	7
Possible MWH	520,800		6,132,000		8

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2006 report.
\*\* Gross of Power Agency

Plant	Unit	Current MW Rating	January 2005 - December 2005	August 2006	January 2006 - August 2006
Asheville	1	198	67.75	78.44	74.11
Asheville	2	194	70.36	84.61	57.47
Cape Fear	5	143	71.61	77.61	79.73
Cape Fear	6	173	64.61	80.15	67.51
Lee	1	79	51.59	70.92	55.53
Lee	2	76	51.41	75.64	50.68
Lee	3	252	61.16	78.46	67.59
Mayo	1	745	75.91	73.96	67.43
Robinson	1	174	77.78	72.89	80.11
Roxboro .	1	385	77.66	90.78	76.98
Roxboro	2	670	64.35	88.62	82.62
Roxboro	3	707	68.49	75.17	73.27
Roxboro	4	700	67.87	79.95	67.19
Sutton	1	97	51.17	65.05	49.86
Sutton	2	106	54.71	73.97	52.43
Sutton	3	410	59.66	71.53	55.51
Weatherspoon	1	49	44.37	65.05	43.15
Weatherspoon	2	49	42.93	66.60	45.28
Weatherspoon	3	78	61.89	74.79	59.02
Fossil System Total		5,285	67.22	78.53	68.92
Brunswick	1	938	94.38	54.76	80.21
Brunswick	2	937	86.02	99.46	95.33
Harris	1	900	100.59	99.39	83.64
Robinson Nuclear	2	710	92.77	101.47	103.99
Nuclear System Total		3,485	93.49	87.82	90.01
Total System		8,770	77.59	82.22	77.30

## Amended SC Fuel Rule Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor  $\geq$  92.5% during the 12 month period under review. For the test period April 1, 2006 through August 31, 2006, actual period to date performance is summarized below:

Period to Date: April 1, 2006 to August 31, 2006

## Nuclear System Capacity Factor Calculation (Based on net generation)

A. Nuclear system actual generation for SCPSC test period	A =	11,216,608	MWH
B. Total number of hours during SCPSC test period	B =	3,671	hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C =	3,485	MW
D. Reasonable nuclear system reductions (see page 2)	D =	1,627,918	MWH
E. SC Fuel Case nuclear system capacity factor: [(A+D) / (B+C	c)] * 100 =	100.4%	

#### NOTE:

If Line Item  $E \ge 92.5\%$ , presumption of utility's minimum cost of operation. If Line Item E < 92.5%, utility has burden of proof of reasonable operations.

# Amended SC Fuel Rule Nuclear System Capacity Factor Calculation Reasonable Nuclear System Reductions Period to Date: <u>April 1, 2006</u> to <u>August 31, 2006</u>

Nuclear Unit Name and Designation	BNP Unit # 1	BNP	HNP	RNP Unit	Nuclear
-		Unit # 2	Unit # 1	# 2	System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	160,194	0	829,590	0	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	299,457	232,967	22,218	6,384	
Reasonable coast down power reductions (MWH)	2,692	3,591	0	0	
Reasonable power ascension power reductions (MWH)	23,143	35,063	0	0	
Prudent NRC required testing outages (MWH)	5,348	76	36	6,384	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	Mickel () Augusto
Acts of Nature reductions (MWH)	0	0	0	774 (*)	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	490,835	271,697	851,845	13,541	
Total reasonable outage time exclusions [carry to Page 1, Line D]			A analysis		1,627,918

<sup>\*</sup> Acts of Nature loss at RNP Unit #2 due to a downpower to prevent the plant from exceeding thermal discharge limit.